Fact Sheet: Japanese Stilt Grass

Japanese Stilt Grass

Microstegium vimineum (Trin.) Camus
Grass family (Poaceae)

NATIVE RANGE

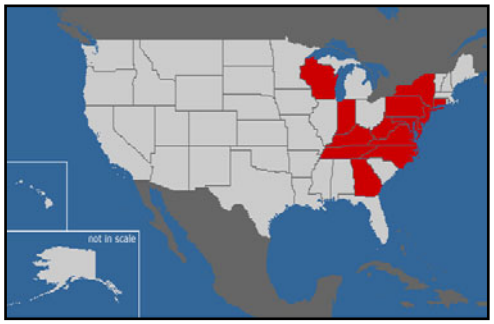
Japan, Korea, China, Malaysia and India

DESCRIPTION

Japanese stilt grass, also known as Nepalese browntop and other names, is an annual plant. It has a sprawling habit and grows slowly through the summer months, ultimately reaching heights of 2 to 3 ½ ft. (6-10 dm.). The leaves are pale green, lance-shaped, asymmetrical, 1-3 in. (3-8 cm.) long, and have a distinctive shiny midrib. Slender stalks of tiny flowers are produced in late summer (August-September). The fruits or achenes mature soon after flowering and the plant dies back completely by late fall.

ECOLOGICAL THREAT

Japanese stilt grass is especially well adapted to low light conditions. It threatens native plants and natural habitats in open to shady, and moist to dry locations. Stilt grass spreads to form extensive patches, displacing native species that are not able to compete with it. Where white-tail deer are over-abundant, they may facilitate its invasion by feeding on native plant species and avoiding stilt grass.



DISTRIBUTION IN THE UNITED STATES

Japanese stilt grass has been reported to be invasive in natural areas in fourteen eastern states (Connecticut, Delaware, Georgia, Indiana, Kentucky, Maryland, North Carolina, New Jersey, New York, Pennsylvania, Tennessee, Virginia, Wisconsin, West Virginia) and Washington, D.C.

HABITAT IN THE UNITED STATES

Stilt grass occurs in a wide variety of habitats including moist ground of open woods, floodplain forests, wetlands, uplands, fields, thickets, paths, clearings, roadsides, ditches, utility corridors, and gardens. It readily invades areas subject to regular mowing, tilling, foot traffic, and other soil disturbing activities. Stilt grass appears to prefer moist, acidic to neutral soils that are high in nitrogen.

BACKGROUND

Introduced into Tennessee around 1919, stilt grass may have accidentally escaped as a result of its use as a packing material for porcelain.

BIOLOGY & SPREAD

Japanese stilt grass is a colonial species that spreads by rooting at stem nodes that touch the ground. Stilt grass reproduces exclusively by seed. Individual plants may produce 100 to 1,000 seeds that fall close to the parent plant. Seed may be carried further by water currents during heavy rains or moved in contaminated hay, soil, or potted plants, and on footwear. Stilt grass seed remains viable in the soil for five or more years and germinates readily.

MANAGEMENT OPTIONS

A variety of control methods are available for stilt grass, depending on the extent of the infestation, the type of habitat, and the availability of labor and other resources. Preventing the introduction of stilt grass into non-infested

areas and out of infested areas should be a priority. Early control of new infestations will also reduce the likelihood of establishment.

Manual
Stilt grass is a shallow-rooted annual that can be pulled by hand throughout the growing season, especially when the soil is moist and entire plants with roots can be removed. Pulling is easier and probably more effective in mid-to-late summer when the plants are much taller and more branched. At this stage, entire plants can be easily removed by grabbing the basal portion of a plant and pulling firmly. In short time, a fair amount of stilt grass can be pulled and piled up to dehydrate on site. If plants are already in the fruiting stage, they should be bagged and disposed of offsite to prevent dispersal of seed. Also, try to avoid pulling native grasses like Virginia cutgrass (*Leersia virginia*) that often grow intermingled with stilt grass and may be difficult to distinguish from it. Because hand pulling plants disturbs the soil and may expose stilt grass seed from previous seasons, late season pulling will avoid the likelihood of seed germination. Hand pulling of plants will need to repeated and continued for many seasons until the seed bank is exhausted.

Mechanical
Stilt grass can be mowed in late summer (i.e., August through September) when the plants are flowering but preferably before seed is produced. This can be done using a lawn mower or "Weed Whacker" type machine or a scythe. Because stilt grass is primarily an annual plant, cutting late in the season before the plants would die back naturally avoids the possibility of regrowth. Recent information suggests that stilt grass plants cut early in the summer respond by and regrowing and flowering soon after cutting, much earlier than they would normally flower. Another reason to cut late in late summer to fall.

Chemical
For extensive stilt grass infestations, use of a systemic herbicide such as glyphosate (e.g., Roundup®) is a more practical and effective method. If applying glyphosate to stilt grass in wetland sites, use the formulation labeled for wetland areas (e.g., Rodeo®). Apply a 2% solution mixed with water (8 oz. per 3 gals. mix) and a surfactant in late summer. Be careful to avoid application to non-target plants because glyphosate is a non-specific herbicide that will kill or damage most plant species it contacts.

Biological
No biological controls are currently available for this plant.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACT
For more information on the management of Japanese stilt grass, please contact:

- Art Gover, Penn State University, LMRC, Orchard Rd., University Park, PA 16802; (814) 863-1184; aeg2 at psu.edu
- Fred Yelverton, Box 7620, NCSU Campus Raleigh, NC 27695-7620, (919) 515-5639, Fred_Yelverton at ncsu.edu

OTHER LINKS
- http://www.invasive.org/search/action.cfm?q=Microstegium%20vimineum
- http://www.lib.uconn.edu/webapps/ipane/browsing.cfm?descriptionid=12

AUTHOR
Jil M. Swearingen, National Park Service, Washington, DC

REVIEWERS
Nancy Benton, Arlington, VA
Gwendolyn Thunhorst, Arlington, VA

PHOTOGRAPH
Theodore Scott, Virginia Native Plant Society, VA

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